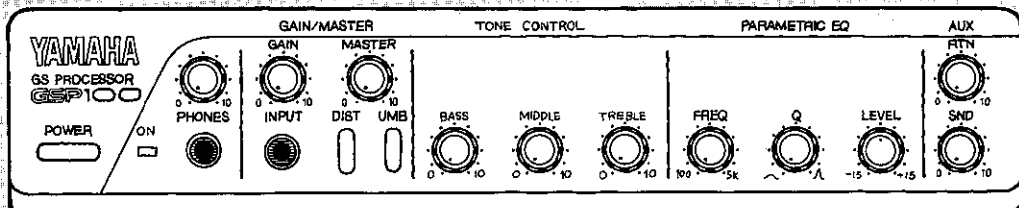


# YAMAHA

## GUITAR SOUND PROCESSOR GSP100

### Operation Manual



#### FCC CERTIFICATION (USA) for GSP100

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna.  
Relocate the computer with respect to the receiver.

Move the computer away from the receiver.  
Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

#### CANADA

THIS APPARATUS COMPLIES WITH THE "CLASS B" LIMITS FOR RADIO NOISE EMISSIONS SET OUT IN RADIO INTERFERENCE REGULATIONS.

CET APPAREIL EST CONFORME AUX NORMES "CLASSE B", POUR BRUITS RADIOELECTRIQUES, TEL QUE SPECIFIER DANS LE REGLEMENT SUR LE BROUILLAGE RADIOELECTRIQUE.

## INTRODUCTIONS

Thank you for purchasing the Guitar Sound Processor YAMAHA GSP100. This unit is a half-rack size guitar preamplifier provided with a host of functions in a compact body. It offers you all the necessary functions for successful home recordings and other similar applications.

In order to get the most of the GSP100's performance and a long service life, please read this Operation Manual thoroughly before use.



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# FEATURES

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- Two volume controls, GAIN and MASTER, for creating a whole range of sounds from the original, clear sound to a naturally distorted sound.
- Built-in distortion circuit for strong distortion effects. Just press the DIST switch when you need extra punch.
- UMB circuit, offering a spacious stereo sound.
- Equipped with AUX SND/RTN jacks for use of stereo effectors.
- 3-band tone controls and parametric equalizer for fine response adjustments.
- The stereo outputs deliver a spacious, dynamic sound.
- Equipped with REC OUT jacks for easy recording.
- Headphone jack with exclusive volume control for private monitoring.
- Due to its compact half-rack size and light weight the GSP100 fits anywhere and is easy to transport.

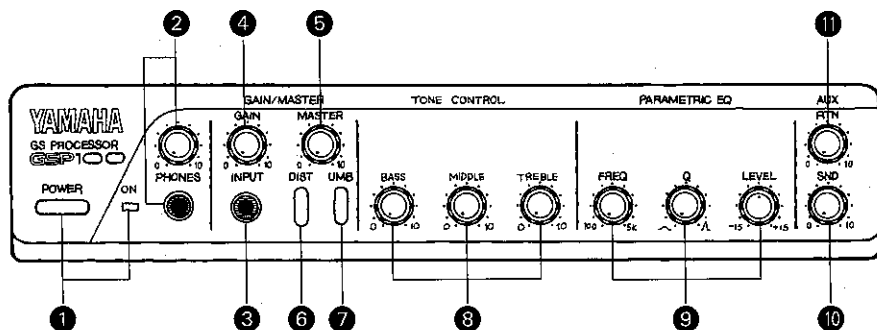
# PRECAUTIONS

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- Always lower the MASTER volume control to the minimum before connecting or unplugging the guitar cord or turning power ON/OFF. Otherwise, the speakers may be damaged.
- Always turn the power switch of other components (power amplifier, etc.) OFF before connecting them to this unit. Also, turn this unit ON first, and of the power amplifier last.
- Only use the YAMAHA PA-1B or PA-5 AC adaptor. Use of an adaptor of different voltage or polarity may result in damage to the unit.
- Avoid using the unit in locations like the following to prevent damage or trouble.
  - \* Places subject to direct sunlight, near heating devices, etc.
  - \* Places with extreme temperatures.
  - \* Excessively humid or dusty places.
  - \* Places subject to strong vibration.
- Do not apply force to switches and knobs.
- Do not open the case or tamper with the internal circuitry to prevent damage and the danger of electric jolts.
- Do not use benzine, thinner or solvents for cleaning the unit, and avoid sprayig aerosol-type insecticides near it (they may cause discoloration, etc.)
- After reading this Operation Manual, keep it in a safe place.

# NAME AND FUNCTIONS OF PARTS

## Front Panel



### ① Power switch (POWER) and indicator

The POWER switch turns the unit on and off. The indicator lights up when this switch is turned ON (—). To prevent speaker damage, always set the MASTER volume control to "0" before turning power ON.

### ② Headphone jack and level control (PHONES)

Connect a pair of headphones to this jack for private monitoring. The headphones volume can be adjusted with the exclusive level control.

### ③ Input jack (INPUT)

Connect the guitar cord here. Always set the MASTER volume control to "0" before plugging or unplugging.

### ④ Gain control (GAIN)

This knob allows for volume and distortion adjustment. Turn it clockwise to obtain greater distortion and longer sustain. Use it together with the DIST switch ⑥ to create a whole range of guitar sounds from a sharp and clear sound to strongly distorted sounds.

Note: No sound will be produced with the GAIN control at the "0" position.

### ⑤ Master volume control (MASTER)

This control allows you to adjust the volume without affecting sound characteristics and timbre as set with the GAIN, DIST, TONE CONTROL, EQUALIZER, UMB and other controls.

Note: No sound will be produced with the MASTER control at the "0" position.

**6 Distortion switch (DIST)**

When you turn this switch ON (—) the built-in distortion circuit will produce a powerful distortion effect.

**7 UMB switch (UMB)**

Turn this switch ON (—) to obtain a spacious sound from the built-in UMB circuit.

**8 3-band tone controls (TONE CONTROL)**

Adjusts the tone by dividing the spectrum in three frequency bands; BASS, MIDDLE and TREBLE. A flat response is obtained with all controls at their center positions.

- \* BASS .... Turn it clockwise to boost low frequencies for a stronger bass sound. Turn it counterclockwise to attenuate low frequencies, obtaining a tighter sound.
- \* MIDDLE . Turn it clockwise to boost mid-range frequencies. This will produce a rich and clear sound. Turn it counterclockwise to attenuate mid-range frequencies, obtaining a more delicate and moderate sound.
- \* TREBLE .. Turn it clockwise to boost high frequencies for a brighter sound. Turn it counterclockwise to cut high frequencies, resulting in a milder sound.

**9 Parametric equalizer controls (PARAMETRIC EQ)**

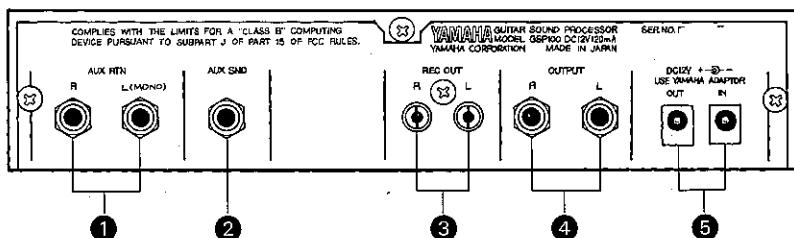
Allows for fine equalization of a specific frequency band.

- \* FREQ ..... Sets the center frequency (between 100 Hz and 5 kHz) of the band to be equalized.
- \* Q ..... To increase (∩) or decrease (∪) the equalizer bandwidth. Turn it clockwise to make the frequency band affected by equalization narrower, allowing for a more precise application of the equalizing.
- \* LEVEL ... Adjusts within a  $\pm 15$  dB range the equalization level of the band centered around the frequency set with the FREQ control. A flat response is obtained with this control at the center position, an increased level when turned clockwise and a decreased level when turned counterclockwise.

**10 AUX send level control (AUX SND)****11 AUX return level control (AUX RTN)**

The level of signals sent to an effect unit connected between the rear panel AUX SND and AUX RTN jacks is adjusted with the AUX SND control, and the level of returning signals with the AUX RTN control. Use these controls to adjust the overall balance between processed and unprocessed signals while actually listening to the sound.

## Rear Panel



- ① AUX return jacks (AUX RTN L(MONO), R)
- ② AUX send jack (AUX SND)

When using an effect unit, like the R100 reverb or a similar device, connect its input terminal to the AUX SND jack of this unit, and its output terminals to the AUX RTN jacks. If the auxiliary component has a monaural output, connect it to the L(MONO) jack of this unit.

- ③ Recording out jacks (REC OUT L, R)

When recording, connect these jacks to the input terminals (LINE IN) of the tape recorder.

- ④ Output jacks (OUTPUT L, R)

Connect these jacks to a power amplifier for driving the speakers.

- ⑤ Power supply terminals (DC12V IN, OUT)

This unit requires a DC +12V power supply. Plug the AC adaptor cord into the DC12V IN terminal.

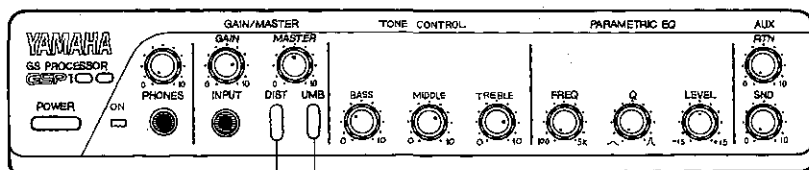
\* Use only YAMAHA PA-1B or PA-5 AC adaptors. Using an AC adaptor other than these might cause damage to the unit.

The DC12V OUT terminal supplies DC +12V power to suitable YAMAHA components like the MV100, the Q100, etc. However, the total current consumption of this unit (120 mA) and connected YAMAHA components must be within the maximum current supplied by the AC adaptor. When connecting two or more extra devices, we recommend you to use the YAMAHA PA-5 AC adaptor, which offers a maximum current supply of 2A.

\* **Don't use a cascade arrangement with reverb processor R100 for the power supply connection.**

# EXAMPLES FOR SOUND ADJUSTMENT

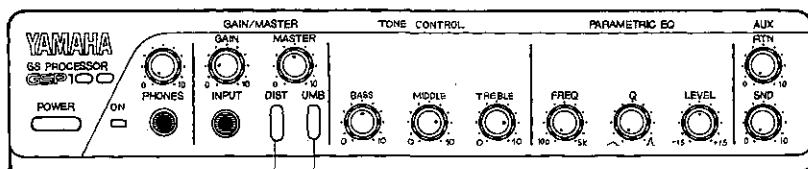
## 1) Strongly distorted, sustained sound



ON ON  
(—)(—)

A pleasant long sustain combined with strong distortion. Use of the ambience effect gives spaciousness to the sound. Turn the BASS control up to make the sound "heavier", and the TREBLE control to make it more "metallic".

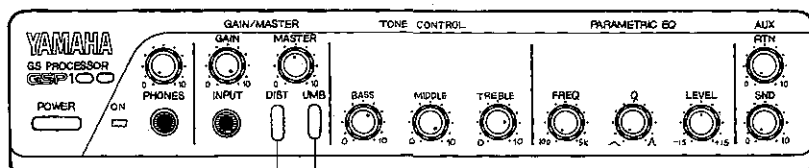
## 2) Clean chording sound



OFF ON  
(—)(—)

Bright sound with high resolution, ideal for chord or multi-string playing.

## 3) Powerful drive sound highly suitable for lead play



OFF ON  
(—)(—)

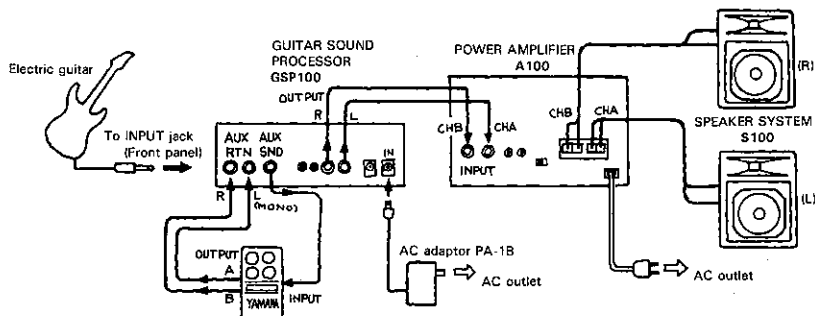
A thick, full-bodied sound. Natural distortion and a sustained mid-to-high-frequency range make it ideal for lead play.

\* Use the 3-band tone controls and parametric equalizer to adjust the sound according to your personal taste.

# SYSTEM EXAMPLES

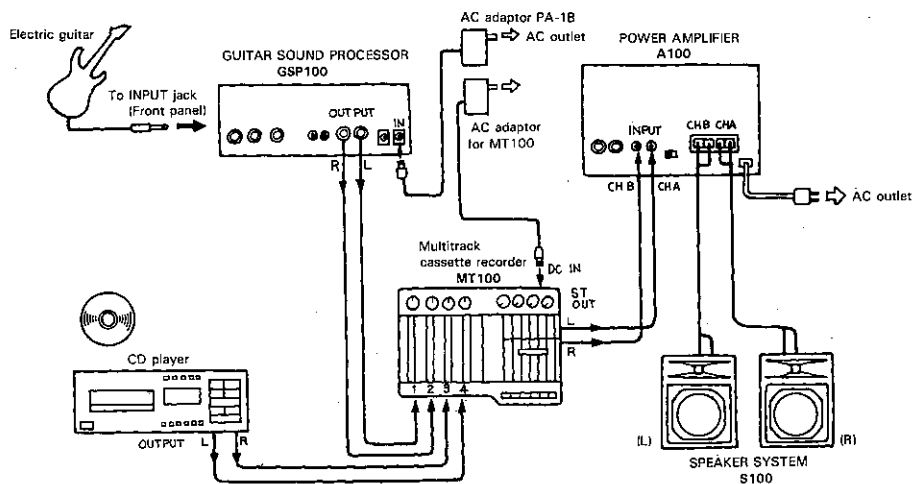
All you need to get full stereo guitar sound is an electric guitar, the GSP100 and a pair of headphones. However, by connecting the GSP100 to other components you can obtain a much more effective sound.

1) When connecting a effect device. (Stereo chorus)



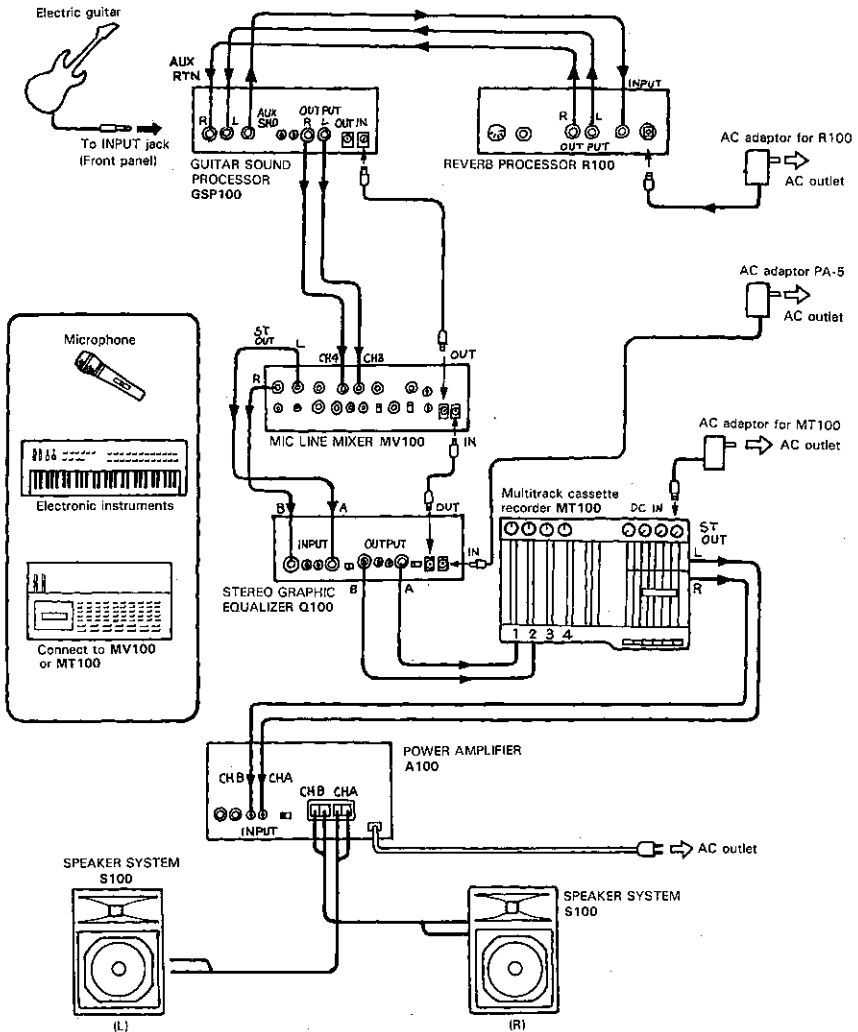
\* For effect device with monaural output, use the AUX RTN L(MONO) jack only.

2) For playing along with the sound from a CD player and recording both sounds together. Also useful for dubbing.





3) For those interested in more advanced sound making.



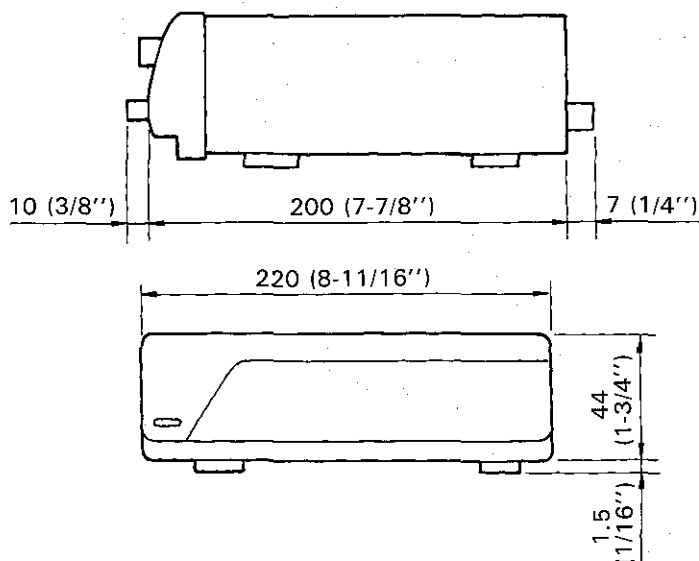
# SPECIFICATIONS

Input Terminals	Guitar INPUT jack: $-35$ dB/1 M $\Omega$ AUX RTN L(MONO), R jacks: $-20$ dB/20 k $\Omega$
Output Terminals	Stereo OUTPUT jacks: $-10$ dB/600 $\Omega$ REC OUT L, R jacks: $-10$ dB/600 $\Omega$ AUX SND jacks: $-10$ dB/600 $\Omega$ PHONES jack: $-22$ dB (at 8- $\Omega$ load)
Controls	POWER switch, PHONES level control, GAIN control, MASTER volume control, 3-band tone controls (BASS, MIDDLE, TREBLE $\pm 15$ dB), parametric equalizer controls (FREQ: 100 Hz to 5 kHz, Q, LEVEL: $\pm 15$ dB), AUX RTN volume control, AUX SND volume control
Power Supply	AC adaptor (DC +12V) <OPTION>
Current Consumption	120 mA
Dimensions (W $\times$ H $\times$ D)	220 $\times$ 45.5 $\times$ 217 mm (8-11/16" $\times$ 1-13/16" $\times$ 8-9/16")
Weight	1.2 kg (2 lbs. 10 oz)
Attachment:	DC cascade power supply cable $\times$ 1

\* 0 dB = 0.775 Vrms

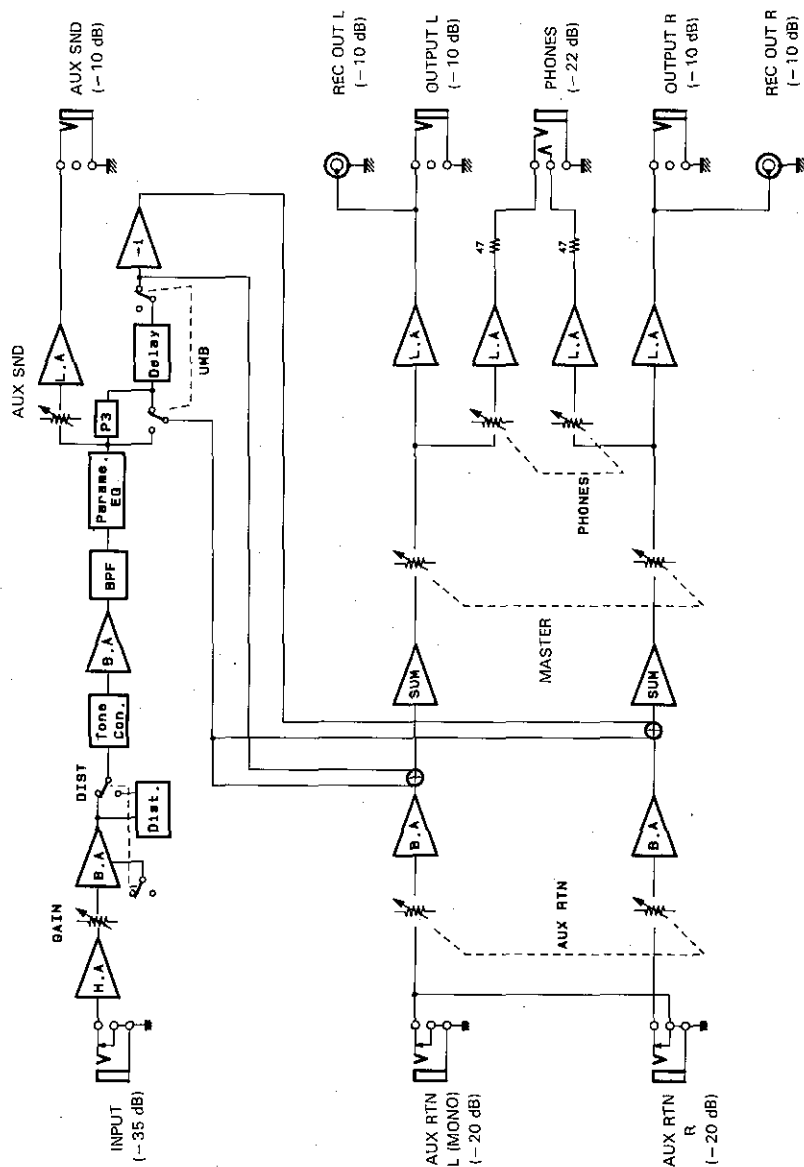
\* Specifications and design are subject to change without notice.

# DIMENSIONS



UNIT = mm (Inch)

# BLOCK DIAGRAM



**YAMAHA**

YAMAHA CORPORATION  
P.O.Box 1, Hamamatsu, Japan

8812 R2   Printed in Japan